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In Re Application of: Laurence James Crew
US Application Number: 10/718,595
Filing Date: 24 November 2003
Title: Computer Mouse with Magnetic Orientation Features
Group Art Unit: 2674
Examiner: EDOUARD, Patrick Nestor
Attorney Docket No: HIF0002U

19 July 2006

Amendments and Arguments

Dear Sirs,

The Applicant is in receipt of the examiner's 2 May 2006 report and the same is gratefully acknowledged.

In that report, the examiner objected to the drawing figures for failure to recite reference numerals 12 and 16. These changes have now been made to Figure 1 together with the additional labeling of one of the radial buttons 14. Corrected drawing sheets are enclosed.

The examiner also objects to the drawings on the basis of 37USC 1.83(a) because the drawings allegedly failed to disclose "first user command input switch comprises three buttons located at generally 180° to one another". In fact, Figure 1 clearly discloses the user command input switch comprising three buttons, these being item no's. 14.

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The appropriate claims have been amended to eliminate reference to the 180 degrees orientation, it being clear from the specification in the drawing figures that Figure 1 discloses an orientation of 120 degrees with respect to one another. As stated on page 4, lines 11 and 12, "...switches 14 which are displaced from one another by, for example, by 90 or 120 degrees". The examiner has also objected to claims 6 and 17 and these claims have been amended accordingly.

The examiner rejected claims 1-2, 4-5 and 15 under 35 USC 103(a) as being unpatentable over the combination of Gouzman ("the 660") in view of Sasselli (the "281"). The applicant understands that the examiner's citation of Sasselli is primarily for the purpose of introducing the notion of wireless mouse communications. However, particularly after the present amendments are considered, the examiner will find that the 660 falls far short of the subject matter forming the basis of claim 1.

In brief, the 660 teaches a computer mouse for blind users. The mouse relies on a tactile display which reside on the upper surface of the mouse. As stated in column 4 of the 660, "the host computer transmits data representative of a portion of the computer's screen display, corresponding to the position of the mouse 10 on the surface 50, back to the mouse 10 via cord 40. Pins 22 are moved up and down in accordance with those data, to provide a tactile representation of the data that is felt by the user's via finger tip 52". The problem addressed by the 660 is the lack of correspondence between the orientation of the tactile display and the screen display.

According to the Applicant's understanding of the 660, the X and Y movement of the mouse body is always absolute (that is, the cursor movement always corresponds to the absolute motion of the mouse) and never compensated for by the magnetic sensors. See figure 2 and the corresponding description. What is happening is that the tactile display is being operated upon and re-orientated according to the magnetic heading to maintain a correspondence between the orientation of the tactile display and the screen in instances where the mouse is rotated. To put this another way, if the mouse in the 660 were rotated 180 degrees and then translated to the user's right, the screen cursor would move to the user's left. Of course, the tactile display would

remain orientated with respect to the screen, but this is not the point nor the claim which the applicant propounds.

In contrast to the 660, the applicant's device continuously and in real time is capable of compensating the mouse body's X and Y movements in accordance with the magnetic orientation. This is because the design and purpose of the device encourages the user to rotate the mouse and it is equally desirable to maintain a correspondence between the true X and Y movement of the mouse and the movement of the cursor on the screen. In this way and with reference to the example provided above with reference to the 660, when the applicant's claimed mouse is rotated by 180 degrees and moved to the right, the cursor will still move to the right of the user's screen. This is because the mouse's processor compensates in real time, the X and Y body movement data according to the magnetic orientation data. This precise feature is now clearly an explicitly recited in claim 1. Neither Gouzman nor any of the other cited references teach, motivate or suggest the type of structure and functionality now explicitly recited by the applicant's claim 1.

Claim 3 was rejected by the examiner under the combination of the 660, the 281 and Lenssen. The applicant rejects the notion that there is any teaching, motive of suggestion in the prior art for making the combination of three references. The motivation for the combination appears to be merely the rejection of the applicant's claim, in hindsight, having had the benefit of the applicant's disclosure. In particular, the incorporation of Lenssen's technology into wireless mouse technology is not comprehended by the applicant.

Claims 6, 8-14 and 16 were rejected as unpatentable in view of the combination of the 660, the 281 and Davenport (the "673"). As with all previously analysed claims, the examiner is urged to reconsider the Gouzman reference when comparing the art to claim 1. Further, the applicant disagrees that there is any motive, suggestion of teaching in the prior art to make the combination referred to in paragraph 10 of the examiner's report. The examiner is urged to resist the applicant of hindsight analysis when examining the claims.

The principles expounded above are equally applicable to paragraphs 11 and 12 of the examiner's rejection of claim 17.

In summary, only one of the references cited by the examiner, the 660 so much as discloses a magnetic orientation feature in a mouse. However, as explained above, this orientation is only used for the purpose of re-orienting the tactile display on the surface of a mouse for blind users. The magnetic data was never thought to be used to achieve a compensation of the mouse's X, Y body movement data for the purpose of maintaining absolute correlation of mouse movement relative to a user's cursor irrespective of the actual rotation or orientation of the mouse. The applicant clearly being the first to disclose and claim this subject matter, it is suggested that the claims be allowed and the same is respectfully urged.

Please charge any deficiency in the fees due to our Deposit Account No. 503458 in the name of Molins & Co.

Regards,



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MM/rm